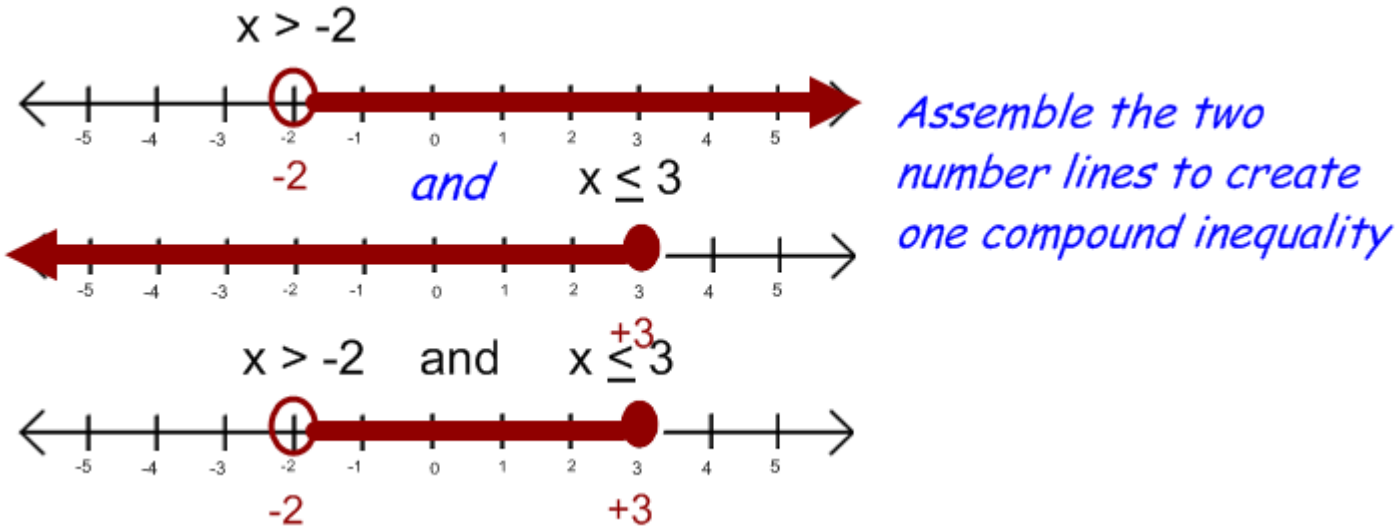
Name:_____Period:_____Date:_____



Necessary Terminology	Compound Inequalities Types: "and" & "or"
Inequalities, Expression, Coefficient, Constant, Compound Inequalities, Circle (excludes), Dot (includes)	**And** $x>-2$ **and** $x\leq 3$ can be written as a compound inequality $-2<x\leq 3$ **Or** $x\leq -2$ **or** $x>3$

Draw the Compound Inequality

1	$x>-5$ **and** $x\leq 4$		Draw Number Line Here

2	$0<x\leq 6$		

3	$x\leq 0$ **or** $x>5$		

4	$x\leq -7$ **or** $x>-1$		

The **"and" compound inequality** can be written as $-5<x\leq 4$ which is an abbreviated from of two inequalities connected in this manner $x>-5$ and $x\leq 4$.

How to read this compound inequality $-5<x\leq 4$.

First hide ≤ 4 and read $-5<x$ from the variable through the symbol to the number.
"*The variable x is greater than negative five.* "

Second hide $-5<$ and read $x\leq 4$ from the variable through the symbol to the number.
"*The variable x is less than or equal to four.* "

Write as two separate inequalities and draw on the number line.

1	$-3<x<2$		Draw Number Line Here
			

2	$1\geq x>5$		
			

Write two separate inequalities and solve for x. Then draw the compound inequality.

3	$1\geq(x-1)>5$		
			

4	$-4\geq 2(x-1)>6$